DRAFT: EMB:AES - 2/7/57 Original draft of note to General Stelbund. Later revised.

The Atomic Energy Commission has been aware of the possibility of radioactive contamination in the Trust Territory resulting either directly or indirectly from fallout. To evaluate the degree of contamination, samples have been obtained both from the sea and the land on several occasions at various islands or atolls in the Trust Territory. Sampling at Eniwetok and Bikini has been more frequent than in other parts of the Territory, but since these atolls are the most highly contaminated, the findings from surveys at Bikini and Eniwetok have guided somewhat the program for surveys in the other areas. Knowing the rate of decrease of radioactivity in a group of organisms at an atoll such as Eniwetok or Rongelap, the decrease in radioactivity in a similar group of organisms at other atolls can be estimated.

Radiobiological surveys have been made for all weapons testing programs in the Pacific, beginning with the first series in 1946. In the last two and one-half years at least 10 collections have been made at Eniwetok and Bikini, seven at Rongelap, four at Ponape, two each at Ailinginae, Rongerik, Ujelang, Likiep, and Guam, and one each at Wotho, Bikar, Uterik, Kusai, Truk, Tarawa, Parece Vela, and Okinawa. Currently, two programs that were started last summer are continuing: one is the collection from islands in the area between Saipan and the Palaus; the other the collection of water samples along the sailing lanes radiating from Guam. It is likely that the collection

of samples in the Saipan-Palau area will be continued until April 1957, but sampling after this period will be dependent upon the results from analyses of samples from the April collection.

In addition to the above mentioned collections, the Naval Radiological Defense Laboratory has collected samples in the Marshall Islands in both 1955 and 1956 for the purpose of evaluating the residual contamination from fallout in plants, animals, soils, and water.

The values for the radioactivity of the samples from these collections are to be found in the reports of the Applied Fisheries Laboratory, University of Washington, of the Naval Radiological Defense Laboratory, and of Operation Troll. The following table roughly indicates the relative level of contamination in various areas.

Table 1. Radioactivity of fish muscle expressed as microcuries per kilogram (wet weight) as of October 15, 1956.

Area	Sample	/uc/kg.(wet)
Bikini	Reef fish	0.460
Eniwetok	" "	0.130
Rongelap	" "	0.041
Wotho	" "	0.037
Ujelang	" "	0.008
Ponape	" "	0.008
"	Tuna	0.018
Guam	Reef fish	~0.004
Tarawa	" "	~0.002

In the above table radioactivity from naturally occurring isotopes might be expected to contribute from .001 to .004 uc/kg.

The program for sampling in the Trust Territory in the future will be largely dependent upon the results of the collections made this year and will be on an "as need" basis. However, if Mr. Nucker has an interest in the radioactivity of particular samples at any time and would ship the sample to us, we would be pleased to make the analyses. Furthermore, we believe that a discussion with Mr. Nucker and his staff from time to time about our program and the meaning of the present level of contamination in the sea and on the land of the Trust Territory would be of mutual benefit.

2/7 Read by P BP AHJ

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June 13, 1957

C. L. Dunham, M. D., Director
Division of Biology and Medicine

Gordon M. Dunning, Health Physicist
Division of Biology and Medicine

RESURVEY OF RONGELAP ATOLL

I had assumed there would be another radiological survey of the Rongelap Atoll just prior to the return of the Rongelapese. I learned from Dr. Seymour today that Dr. Donaldson's group would not be returning until July for their next survey (the Rongelapese will be returned the latter part of June). I felt it was quite essential for documentary and public relations reasons that a survey should be made prior to, or at least at the same time as the return of the Rongelapese. Therefore, I checked with Colonel Schnitzke and he is making arrangements for the RAD Safe group at Eniwetok to make external gamma measurements. It would have been highly preferable to have had a complete survey of the Atoll, especially the foodstuffs, but it appears we will have to settle for the external readings only.

cc: Dr. Western
Dr. Seymour

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Office Memorandum • UNITED STATES GOVERNMENT

TO : Gordon Dunning, AEC, DBM, Washington 25, D.C. DATE: JUN 28 1957

FROM : Ernest Wynkoop, Chief, Eniwetok Branch, Test Div., EPG

SUBJECT: GAMMA RADIOLOGICAL SURVEY OF RONGELAP AND ANEAETOK ISLANDS

SYMBOL: ETE:EW:M-2255

Maps locating stations are in map files

A radiological survey team consisting of Henry P. Schlacks, AEC, Radiological Safety Assistant, Stan Curry, H&N Radiological Safety Officer, and two H&N monitors, surveyed Rongelap Island and Aneaetok Island on June 25, 1957. The survey team was flown to Rongelap Atoll by a Navy UF-1.

All readings were made with PIC-5s at a height of three feet above the ground. The survey team did not have time to completely survey the dense jungle areas of the island. All living areas, main roads, and the fringe of the jungle were covered.

Rongelap island had a high reading of .13 mr/hr, an average of .03 mr/hr, and a low of .01 mr/hr.

Aneaetok island had a high reading of .2 mr/hr, an average of .05 mr/hr, and a low of .01 mr/hr.

On sheets numbered J/S-47-002-C4 and J/S-47-002-C6, the caption, dirt road not surveyed, refers to an engineering survey.

EW:fvm

Enclosures:
1. J/S-47-002-C1 (trip)
2. J/S-47-002-C2 (trip)
3. J/S-47-002-C3 (trip)
4. J/S-47-002-C4 (trip)
5. J/S-47-002-C5 (trip)
6. J/S-47-002-C6 (trip)

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CC: Joe Sanders, ALOO (w/1 cy each)
Chrono
Central

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